REMARKS/ARGUMENTS

This Amendment is in response to the Office Action mailed February 11, 2008. Claims 1-3, 5-7 and 9-11 were pending in this application. This Amendment amends claims 1, 3, 5, 9, and 11. No claims have been canceled or added. Claims 1-3, 5-7 and 9-11 are currently pending. Reconsideration of the rejected claims is respectfully requested.

I. Requirements for Information under 37 CFR 1.105

The Examiner has requested that Applicants provide information on the "Demantra Demand Planner" as indicated on page 1 of the Background portion in the Application as filed. Multiple attempts were made to contact the inventors, of which, the contact information for a single inventor, Amit Ben Zvi was located. After communications with Amit Ben Zvi, it was determined that the client's (Oracle) repository for the Demantra products documentation did not include documents that were dated at or near the time of filing of the present application. Accordingly, Applicant submits that the information required to be submitted is unknown or is not readily available pursuant to § 1.1.05(a)(4).

II. Rejection Under 35 U.S.C. §112, First Paragraph

Claims 1-2, 5-6 and 9-10 are rejected under 35 U.S.C. §112, first paragraph, as based on a disclosure which is not enabling. In particular, the office action asserts that the step of the user entered multiplier value (M) specifying how many tasks the user wants each computer server to process on average appears to be critical/essential to the practice of the invention, but is not included in the claims, and is not enabled by the disclosure. (Office Action, p. 3, item 3). Applicants respectfully disagree.

Applicants respectfully submit that the specification clearly enables the features of claim 1. For example, Applicants direct the Examiner to pages 3 line 20 thru page 4 line 2 of the specification, which recites in part:

> In view of the above, and since the actual computing time for computing demand forecast information for a branch of a demand forecast tree typically involves considerable computing overhead, in the case that the number of branches of a demand forecast tree exceeds the number of computer servers available for computing demand forecast information, rather than being processed separately, the branches of a demand forecast tree are preferably grouped into discrete tasks each containing one or more branches which are then available for allocation to computer servers for processing on a first come first served basis.

> The number of tasks is generally an integer multiple of the number of computer servers available for computing demand forecast information as specified by a user, and the computing demands of different tasks of a demand forecast application are preferably equalized as much as possible to facilitate minimizing its run time. (emphasis added).

As such, the demand forecast information can be computed based on the computational demand for each branch of the demand forecast tree and the number of servers available for computing demand forecast information. Thus, in one embodiment, for example, the multiplier information may not be required. It is believed that the features of claim 1, and the claims that depend therefrom, are sufficiently disclosed and enabled. Applicants therefore respectfully request that the rejection be withdrawn with regard to these claims.

Independent claims 5 and 9, and the claims that depend therefrom, recite limitations that similarly sufficiently disclosed and enabled. Applicants therefore respectfully request that the rejection be withdrawn with respect to these claims.

III. Rejection Under 35 U.S.C. §112, Second Paragraph

Claims 1-3, 5-7 and 9-11 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the office action asserts that step (d) which recites the phrase "to a task of a plurality of tasks" is vague and indefinite. Applicants respectfully submit that the claims as amended overcome this rejection. Applicants therefore respectfully request that the rejection be withdrawn with respect to these claims.

IV. Rejection under 35 USC § 103, Applicant's Admitted Prior Art in view of Fong

Claims 1-3, 5-7 and 9-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter "AAPA") in view of Fong. (US Pat. No. 6,366,945) (hereinafter "Fong"). Claim 1 is allowable as AAPA and Fong either alone or in combination, do not teach or suggest each and every element of claim 1. For example, claim 1 recites in part:

> providing at least two computer servers for independently computing demand forecast information for one or more branches of the plurality of branches of the demand forecast tree;
> determining a computational demand for each branch of the plurality of branches;

for each branch of the plurality of branches, allocating the branch to a task of a plurality of tasks based on the computational demand for the branch, such that a total computational demand for each task is substantially equal, wherein the total computational demand for a task of the plurality of tasks is determined by adding the computational demand for each branch that is allocated to the task;

for each task, distributing the task to a computer server of the at least two computer servers;

computing demand forecast information using one of said at least two computer servers, the demand forecast information computed from a first set of observations of said observations, the first set of observations being associated with a first task of the plurality of tasks, the first task being distributed to the one of said at least two computer servers, wherein the first task includes at least a first branch of said plurality of branches of the demand forecast tree; and

simultaneously with said one computer server computing demand forecast information from said first set of observations computing demand forecast information using said other of said at least two computer servers, the demand forecast information computed from a second set of observations of said observations, the second set of observations being associated with a second task of the plurality of tasks, the second task being distributed to said other of said at least two computer servers, wherein the second task includes at least a second branch of said plurality of branches of the demand forecast tree. (emphasis added).

As recited above, claim 1 specifically recites "providing at least two computer servers for independently computing demand forecast information for one or more branches of the plurality of branches of the demand forecast tree." Applicants submit that at least this feature recited in claim 1 is not taught or suggested by AAPA and Fong, either alone or in combination.

The Office action asserts that AAPA teaches the features identified by the Examiner as step (a) (b), (e), and (f). It should be noted that AAPA makes no mention or suggestion of simultaneously using two computers to determine a demand forecast solution. Typically, demand of a product or multiple products can be forecasted for a future time period based on an analysis of historical observations of demand (i.e., historical sales data) and also based on a mathematical simulation model for the demand process. (Specification, p. 1, lines 13-19). The historical sales data is represented as bottom-level nodes in the demand tree. One level of the demand tree represents the particular consumer item that was sold and another level represents the location/outlet at which the item was sold. (Specification, p. 1, lines 13-19, p. 4, lines 23-28). Accordingly, the bottom level nodes represent the historical sales data for a particular consumer item sold at a particular location/outlet. Then, typically a single server will process all of the historical sales data to determine the forecasted demand.

Thus, AAPA merely describes that a single computer traverses each and every node of the demand forecast tree and processes the entire set of historical sales data in order to determine the demand forecast solution. As such, AAPA fails to teach or suggest step (a) which

teaches that at least two servers are used to compute the forecasted demand. Thus, AAPA cannot render claim 1 obvious.

Moreover, Fong does not make up for the deficiencies in AAPA with respect to this feature. Fong describes how to partition resources in a cluster computing environment. (Fong, col. 1, lines 6-7). There is no mention or suggestion of "providing at least two computer servers for independently computing demand forecast information for one or more branches of the plurality of branches of the demand forecast tree," as recited in claim 1. Likewise, AAPA also fails to teach or suggest steps (b) - (f), which recite allocating branches and distributing tasks of the entire tree among two or more servers. Thus, Fong cannot render claim 1 obvious, either alone or in combination with AAPA.

As recited above, claim 1 specifically recites "determining a computational demand for each branch of the demand forecast tree," and "for each branch of the plurality of branches, allocating the branch to a task of a plurality of tasks based on the computational demand for the branch." Applicants submit that at least this feature recited in claim 1 is not taught or suggested by AAPA and Fong, either alone or in combination.

The office action recognizes that AAPA fails to make any reference of analyzing computational demand for branches and allocating branches to tasks. (Office Action, p. 6, item 8). Fong is relied upon for such teaching. The office action states that Fig. 4 of Fong , elements 44, 45, and 46, which have bottom level nodes, show analyzing a computational demand for branches by determining a number of bottom-level nodes, (Office Action, p. 7). Applicants respectfully disagree.

Fong describes allocating nodes (resources) to applications as needed. (Fong, col. 1, lines 15-25). Fong further describes

> Partitioning, in general, is the ability to divide up system resources into groups of parts in order to facilitate particular management functions. (Fong, col. 1, lines 32-34). A triggering event 24 occurs which affects the resources of partition 21. Another example of a trigger is the circumstance in which the number of applications awaiting resources in a partition exceeds the number of applications for the peer partition by at least a threshold amount. Under such conditions, partition 21 must seek help from a peer partition to share resources. (Fong, col. 2, lines 55-65). In a space sharing partition, 43, in which applications can be reconfigurable, the FDP 403 reallocates the resources to application partitions, 44-46, every time a job arrives or leaves. In this case, the reallocation triggers are job arrivals and departures. (emphasis added).

Applicants respectfully submit that Fong does not teach or suggest determining computational demand for branches, which is the demand for resources that are required to process the data associated with the branch and to compute forecast information for the branch. (Specification, p. 3, lines 5-9). Fong merely describes that a parallel computing system's resources are divided into parts, and those parts are allocated and reallocated to applications. The application partitions 44-46 are groups/partitions of the system's resources that have been set aside for use by a particular application, such that item 44 is a partition of the system's resource that has been set aside for use by Application 1. Regardless of whether item 44 has bottom-level nodes, the nodes of Fong represent portions of the system's resources, such as processors and disks. There is no indication that Fong suggests that computational demand is determined for the branches in FIG. 4 of Fong, nor is there any indication that computational demand of the applications themselves are determined. As such, Fong fails to teach or suggest a computational demand for each branch of the demand forecast tree.

It is asserted by the Office action that the step of "allocating the branch" is taught by Fong. Specifically, it is asserted that Fong describes allocating nodes among different parallel job/processing systems in order to perform efficient scheduling of resources, pointing to Fong (col. 1, lines 14-67, and col. 2, lines 1-67). Applicants respectfully disagree.

Applicants respectfully submit that Fong does not make up for the deficiencies in AAPA with respect to the feature of "allocating the branch…based on the computational demand for the branch," as recited in claim 1. As described above, Fong does not teach or suggest that a computational demand of a branch is measured or otherwise determined. Similarly, Fong also does not teach or suggest that a branch is allocated to a task based on the computational demand for the branch. In particular, Fong describes that nodes (i.e., resources from a processing system) are allocated among different applications, such that application 1 is permitted to use disk 1, and application 2 is permitting to disk 2. (Fong, FIG. 4). Fong clearly describes that allocation and reallocation of resources is based on a load differential between the partitions of resources. (Fong, col. 6, lines 17-20). It should be recognized that load differential among resources (such as how much of the resource is being used) is not a measure of the computational demand for the branch of the demand forecast tree. Furthermore, Fong only describes that single nodes are

reallocated between partitions. (Fong, col. 6, lines 21-26). Reallocation by Fong is done on a node by node basis, checking control parameters along the way. The features of claim 1 recites that a branch, rather than an individual node, is allocated to a task. As such, Fong fails to teach or suggest allocating a branch based on the computational demand for the branch.

Thus, Fong cannot render claim 1 obvious, either alone or in combination with AAPA. As claim 1 is allowable, dependent claims 2-3 are also patentable for at least the same rationale. Neither does AAPA nor Fong provide motivation for providing such functionality, and even if the references were combined for sake of argument the result would not arrive at the invention recited in Applicants' claim 1.

Applicants submit that independent claims 5 and 9 also recite features that are not taught or suggested by AAPA and Fong and should be allowable for at least the same rationale as discussed with respect to claim 1. Claims 6-7 depend from independent claim 5 and thus derive patentability at least therefrom. Claims 10-11 depend from claim 9 and thus derive patentability at least therefrom. Applicants therefore respectfully request that the rejection with respect to the pending claims be withdrawn.

V. Amendment to the Claims

Unless otherwise specified, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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